## REMARKS

Claims 1-38 are pending while claims 3, 5, 8, 16, 17, 20-22, 25, 33, 34, and 36 are withdrawn from consideration. Claims 1, 2, 4, 6, 7, 9-15, 18, 19, 23, 24, 26-32, 35, 37, and 38 are rejected, whiles claims 1, 18, and 35 have been amended and claims 39-41 are newly added. No new matter has been added.

***Election/Restrictions***

Claims 3, 5, 8, 16-17, 20-22, 25, 33-34 and 36 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected claimed species, the Examiner alleging there being no allowable generic or linking claim. Applicants acknowledge that the requirement is still deemed proper and is therefore made FINAL with traverse. Applicants rely on previous arguments for the same.

***Claim Rejections -35 USC §102***

Claims 1-2, 4, 6-7, 9, 18-19, 23-24, 26 and 35 stand rejected under 35 U.S.C. §102(b) as being anticipated by Mrenna et al. [U.S. Patent No. 4,719,438]. Applicants respectfully traverse.

The Examiner alleges that Mrenna et al. disclose a magnetic trip unit [figure 2] for actuating a latch [155], to trip a circuit breaker upon an overcurrent condition, the magnetic trip unit comprising:

- a first electrically conductive strap [69] configured to conduct an electrical current;
- a first magnetic u-shaped magnetic yoke [103, figure 10] proximate the conductive strap;
- a first armature [105] pivotally disposed proximate to the first magnetic yoke in operable communication with the latching mechanism;
- adjustment means [119,199] for setting the distance between the yoke and

armature, wherein the reluctance is adjusted to prevent saturation of the magnetic flux when current through the strap is a first number time the rated current of the circuit breaker and the reluctance is adjusted to promote saturation of the magnetic flux when the current through the strap is a second number time the rated current of the circuit breaker and the first number is greater than the second number and the reluctance allows increases in the magnetic flux across the magnetic path without saturating when the current through the strap is the first number time the rated current and the magnetic flux approaches saturation as the current through the strap increases towards the second number time the rated current.

It is respectfully submitted that Mrenna et al. disclose a trip unit comprising a coil, a core, and an armature, **a flux concentrating plate** spaced from and on the side of the armature opposite the core and for concentrating the magnetic field between the core and the armature, ***and*** **a hold-back bracket** having extending from and retaining the armature in a spaced position from the core so as to cause the magnetic field lines to flow through the bracket and the armature. See Abstract.

In particular, Mrenna et al. disclose with respect to Figure 10 upon which the Examiner relies, means to control the hold-back force are provided, such as set screws 199, whereby the **spacing** or air gap **between the armature and the flanges 185** may be varied. Col. 7, lines 24-28. More specifically, Mrenna et al. disclose the provision of the bracket 179 to the current art structure (FIG. 4 of Mrenna ) solves the problem of "hang-up" of the armature. However, it does not easily permit exact calibration of the assembly. Calibration is necessary to control the trip at certain values of current by controlling the air gap between the armature and the core. In the prior art unit, calibration was difficult, because the control of the magnetic flux between the armature and the core was difficult and impractical to maintain; there was no room to really adjust the gap. Col. 6, lines 31-40.

Mrenna et al. disclose **a flux calibrating plate 177** provided in FIG. 5 to enable calibration. In the preferred embodiment of FIG. 5, **the combination of the plate**

**177 and the hold-back bracket 179 provides a solution to the problem of armature "hang-up"** that existed with the prior art structure (FIG. 3). The **plate 177 in combination with the bracket 179** enables more complete collection and concentration of magnetic flux lines between the core and the armature. The plate 177 increases the total magnetic filed within the volume of the core and armature. Calibration is achieved by adjusting the spacing **between the plate and core**, thus shaping the magnetic field for calibration. Col. 6, lines 41-53. Mrenna et al. do not disclose calibration achieved by adjusting a space between the core and the armature.

To anticipate a claim under 35 U.S.C. § 102, a single source must contain all of the elements of the claim. Lewmar Marine Inc. v. Barient, Inc., 827 F.2d 744, 747, 3 U.S.P.Q.2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988). Moreover, the single source must disclose all of the claimed elements **"arranged as in the claim."** (Emphasis added). Structural Rubber Prods. Co. v. Park Rubber Co., 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

Furthermore, the mere elimination of a feature with the consequent loss of its function is generally considered within the level of ordinary skill in the art. However, it should be noted that the omission of an element and retention of its function is an indicia of unobviousness. In re Edge, 359 F.2d 896, 149 USPQ 556 (CCPA 1966).

Mrenna et al. teach the additional elements of plate 117 and bracket/flanges 179/185, "whereby upon maximum spacing of the plate 177 from the core, the flux density is reduced and a greater current is required to attract the armature toward the core. Conversely, when the spacing is reduced, the flux density is increased and a smaller overload current is required to actuate the trip bar 83." Col. 4, lines 41-47.

In fact, Mrenna et al. not only teach additional elements (i.e., plate 177 and bracket/flanges 179/185), Mrenna et al. teach away from Applicants' invention. In particular, Mrenna et al. disclose that although the bracket 179 generates the hold-back force due to the main flux between the armature 105 and the bracket, the force opposes the attractive or pulling force between the core 103 and the armature 105. The net force

on the armature is reduced as compared to the prior art embodiment (FIG. 3), and therefore there is a problem of calibration. The plate 177 confines the flux to the smaller volume between the bracket base surface and the plate, thus increasing the magnitude of the flux density between the core and the armature. In the embodiment of FIG. 10 relied on by the Examiner, means to control the hold-back force are provided, such as set screws 199, whereby the spacing or air gap between the armature and the flanges 185 may be varied. Col. 7, lines 15-28.

Mrenna et al. does not teach or suggest, and in fact teaches away from, said first armature and said first magnet yoke providing a magnetic path therebetween; said magnetic path therebetween *consisting of* spaced apart facing surfaces of each of said first armature and said first magnet yoke; said magnetic path therebetween having a reluctance to magnetic flux; said reluctance is adjusted to prevent saturation of said magnetic flux when said current through said strap is a first number (X) times a rated current of the circuit breaker and said reluctance is adjusted to promote saturation of said magnetic flux when said current through said strap is a second number (Y) times said rated current of the circuit breaker; wherein said first number is a number smaller than said second number, as in claim 1 and similarly claimed in claims 18, 35, and 39. Thus, it is respectfully submitted that claims 1, 18, 35, and 39, including claims depending therefrom, i.e., claims 2, 4, 6, 7, 9-15, 19, 23, 24, 26-32, 37, 38, 40, and 41, define over Mrenna et al.

***Claim Rejections -35 USC §103***

Claims 10-14, 27-31 and 37-38 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mrenna et al. in view of Montague et al. [U.S. Patent No. 5,670,922] or Daehler et al. [U.S. Application No. 2003/01 74033]. Applicants respectfully traverse.

It is respectfully pointed out that claims 10-14, depend from claim 1, claims 27-31 depend form claim 18, and claims 37-38 depend from claim 35, all of which are submitted as being allowable for defining over Mrenna et al. as discussed above.

Furthermore, it is respectfully submitted that use of the yoke and flanges allegedly taught in Montague et al. and Daehler et al. does not cure the deficiencies noted above with respect to Mrenna et al.

Claims 15 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Mrenna et al. in view of Arnold et al. [US 5,381,120]. Applicants respectfully traverse.

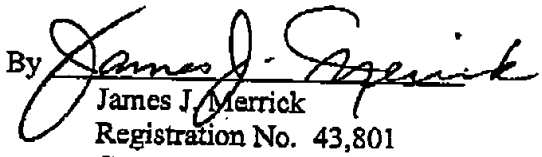
It is respectfully pointed out that claims 15 and 32, depend from claims 1 and 18, respectively, both of which are submitted as being allowable for defining over Mrenna et al. as discussed above. Furthermore, it is respectfully submitted that use of the conductive strap of Arnold et al. does not cure the deficiencies noted above with respect to Mrenna et al.

***Conclusion***

In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued.

In the event the Examiner has any queries regarding the presently submitted response, the undersigned respectfully requests the courtesy of a telephone conference to discuss any matters in need of attention. No new matter has been entered and no additional fees are believed to be required. However, if any fees are due with respect to this Response, please charge them to Deposit Account No. 06-1130 maintained by the office of the undersigned.

Respectfully submitted,
Cantor Colburn LLP

By 

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